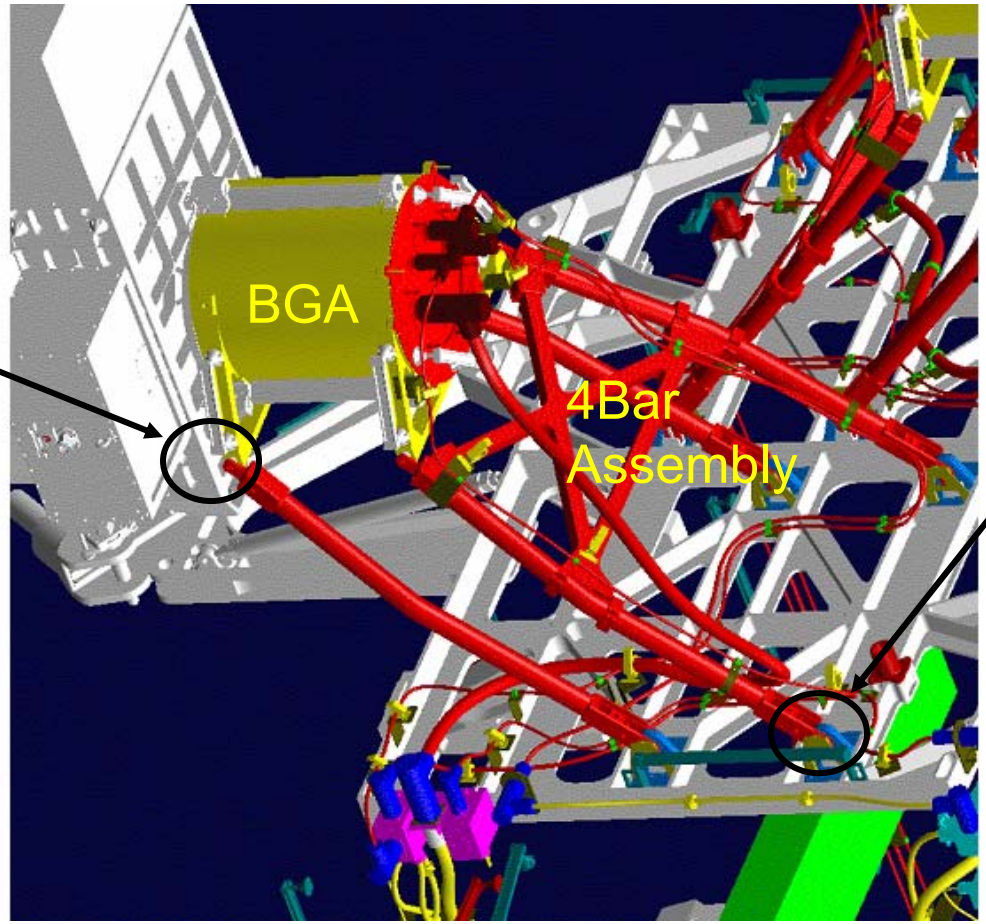
BGA Shoulder Bolt Inspection

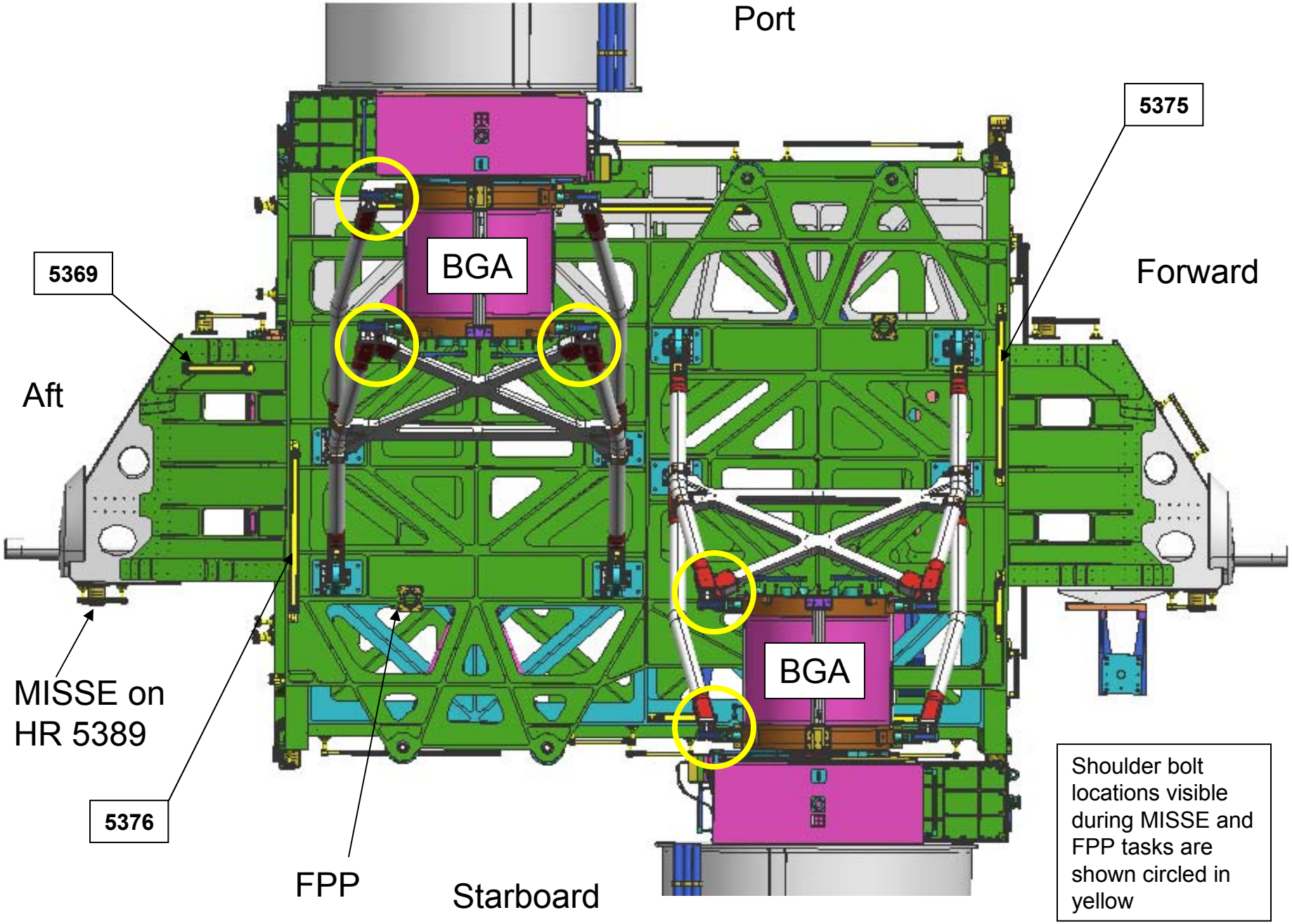
The primary goal of the inspection is to verify that the P6 BGA shoulder bolts are present (or backing out) in the locations which are readily visible during the MISSE and FPP photography tasks.

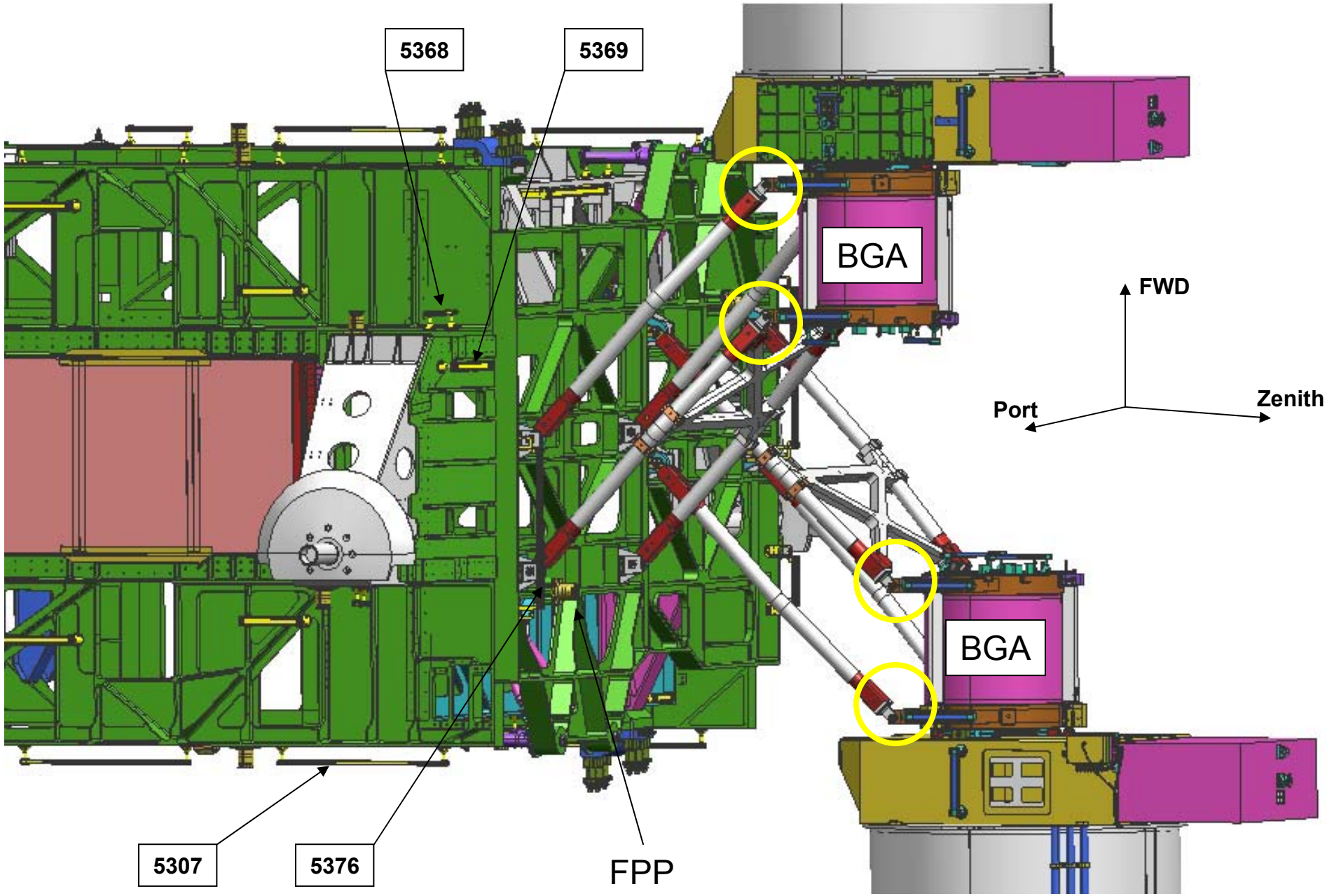
Shoulder Bolt Location
(4 per BGA)



Trigger Cup Location
(8 per BGA)

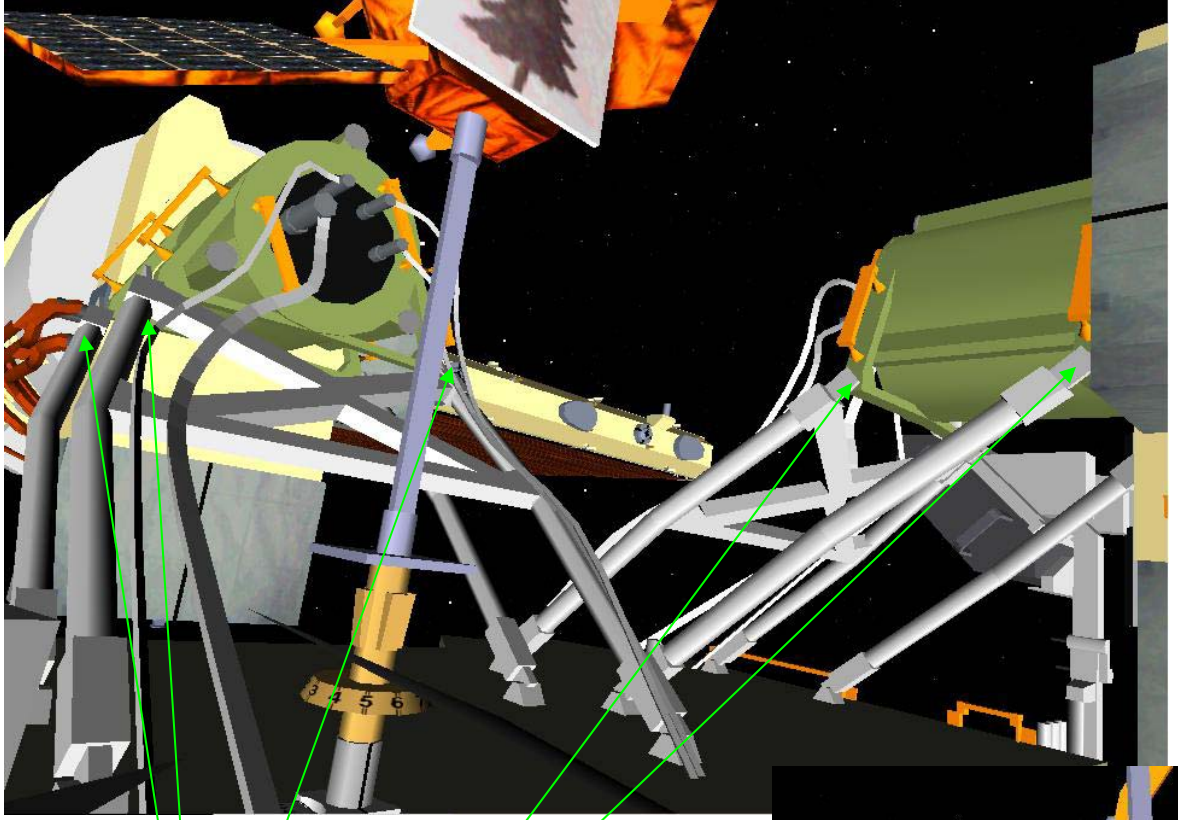
- The design on P6 has an oversized hole used on a bolt that is carrying a shear load. The bolt interface receives cyclic shear loading which can, over time, cause the bolt to back out. A future EVA will install a bolt locking device. However in the meantime, the integrity of the bolts has been inferred from photogrammetry during reboost. Photographs of the bolts will provide direct verification of their integrity.
- Photography is preferred but WVS video is acceptable
- Photographs will be taken from handrail 5307

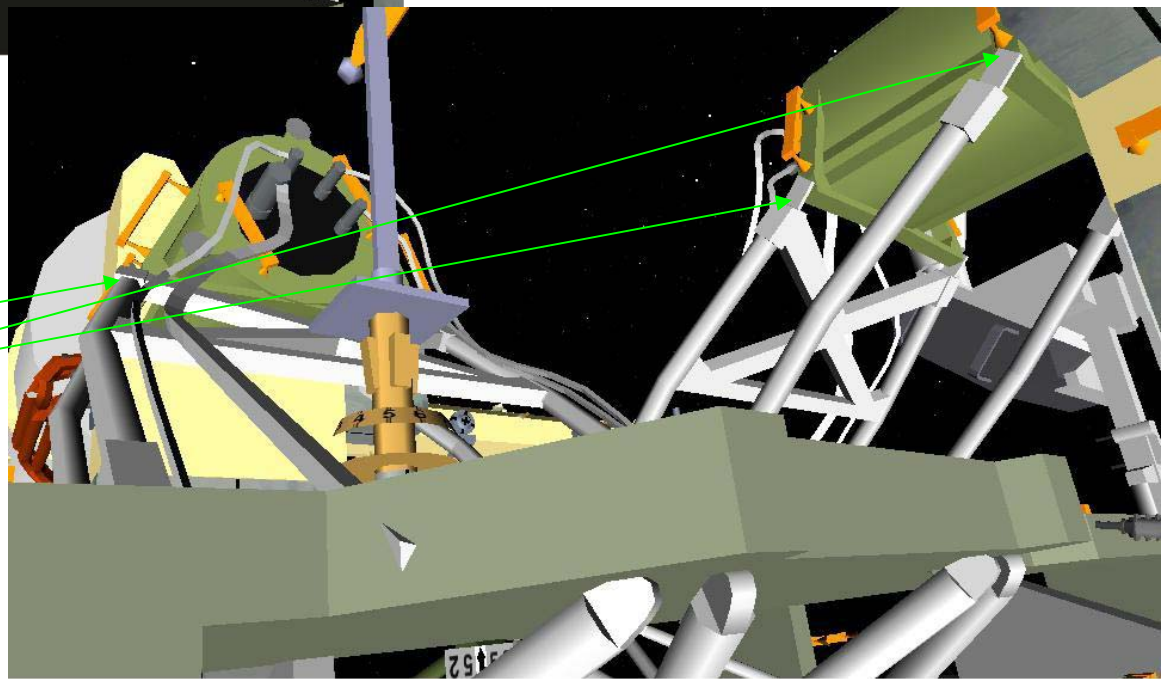

Port
5375
5369
BGA
Forward
Aft
BGA
MISSE on
HR 5389
5376
FPP
Starboard
Shoulder bolt locations visible during MISSE and FPP tasks are shown circled in yellow



Photography will be taken from HR 5307 due to KOZ's

Possible views from HR 5307



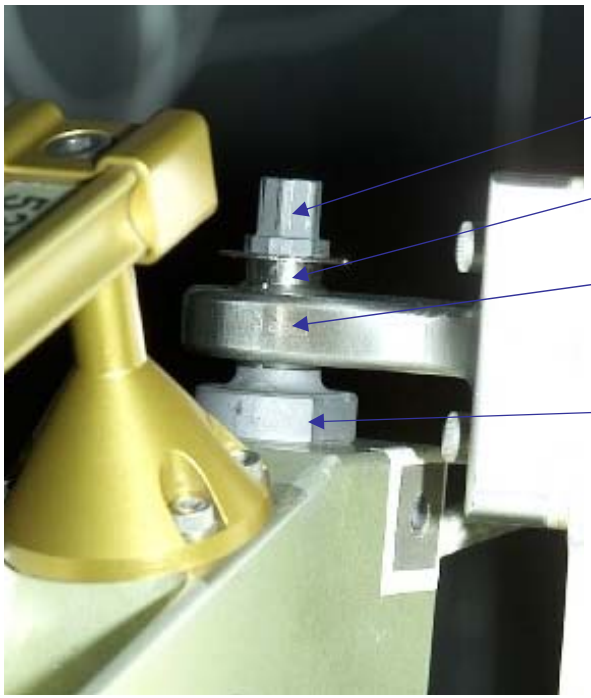


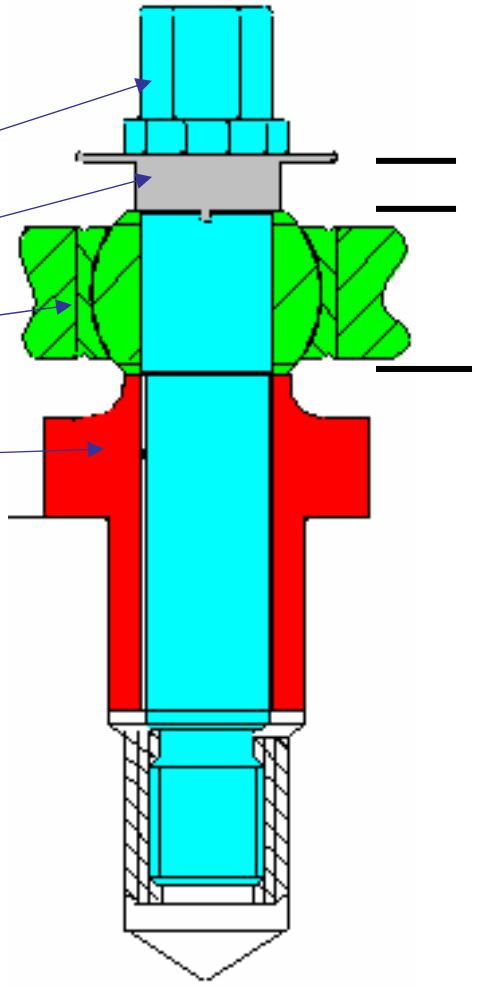
Locations of bolts to photograph

BGA Shoulder Bolt Inspection

Shoulder Bolt Back Out Inspection Points

Shoulder Bolt Assembly Cross-Section





A loose shoulder bolt would create gapping at any one (or all) of these three locations.